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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,063

05/12/2006

Robert Short

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03/19/2009

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EXAMINER

HEYER, DENNIS

ART UNIT

PAPER NUMBER

4121

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,063	Applicant(s) SHORT ET AL.	
	Examiner DENNIS HEYER	Art Unit 4121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/27/2005; 02/17/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 1 – 32 are currently pending

Election/Restrictions

Claims 26 – 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected groups, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 02/17/2009. Claims 1 – 25, are under examination in the instant office action.

Priority

This application, 10/533,063, filed 05/12/2006 is a national stage entry of PCT/GB03/04653 , International Filing Date: 10/29/2003. This application claims foreign priority under U.S.C. § 119 of United Kingdom patent application GB0225197.3, filed 10/30/2002. Claims 1- 25 of the instant application are supported in the specification of the foreign priority application.

Claim rejections – 35 USC § 112 – 2nd Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 is rejected under 35 U.S.C. 112, second paragraph as being indefinite. for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 14 recites the broad recitation W/FM of $<10^9$ J/kg, and the claim also recites W/FM of $<10^7$ J/kg which is the narrower statement of the range/limitation.

Claim rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989) and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999).

Regarding instant Claim 1, the Short reference teaches a method comprising providing an organic monomer, creating a plasma of said organic monomer and coating the surface with said plasma to provide a an assay surface (Claim 27). The reference teaches that such a surface may be contacted with a broad range of compounds including agonists and antagonists (page 6, lines 4 – 8 and Claim 6). Carbohydrates, in their native form, comprise a class of antagonists (heparin, for example).

Regarding instant Claim 2, the Short reference cites a method for contacting a carbohydrate (antagonist) according to the method of instant Claim 1 via an assay procedure involving passive binding of biological molecules, i.e. without chemical modification (page 3, lines 18 – 19; page 5, lines 14 – 16).

Regarding instant Claim 3, the Short reference discloses an Immunoassay in which all reagents, except the polymer modified surface are in solution. Thus, when said assay is performed in the presence of, for example, a bioactive carbohydrate, absent evidence to the contrary, the carbohydrate would be in solution.

Regarding instant Claims 4 – 7 and 11, drawn to the composition of the monomer in the method of instant Claim 1. Regarding instant Claims 4 – 7, the Short reference teaches plasma monomers that are volatile alcohols, amines, hydrocarbons and acids (page 3, lines 27 – 31 and Claim 22). Regarding instant Claim 11, the volatile alcohols, amines and acids taught in the rejection of instant Claims 4, 5 and 7, contain hydroxyl, amino and carboxylic acid groups, respectively (see also page 8, lines 1 - 4, specifically teaching, allyl alcohol, acrylic acid and allyl amine).

Regarding instant Claims 8 – 10, drawn to the percent nitrogen content on surface comprising a polymer, formed by the method of instant Claim 1. The reference teaches the allyl amine-based polymer surface prepared by the method of instant Claim 1, has a nitrogen content greater than 20% (page 14, 5 – 9).

Regarding instant Claim 12, the plasma, the reference teaches that the monomer comprising the method of instant Claim 10 is allyl amine (page 14, 5 – 9).

Regarding instant Claims 13 drawn to the vapor pressure of the monomer. The Short reference teaches the same monomers as the instant application, accordingly the monomers would necessarily have the same vapor pressure properties.

Regarding instant Claim 14, which has been rejected above as being indefinite under 112 2nd paragraph, the Short reference is silent on the parameter range cited in the instant claim. However, as the example taught in the Short reference (page 10, Plasma Polymerisation section) is not significantly different with respect to Rf power, flow rate and pressure it appears that the prior art teaches the limitations of instant Claim 14.

Regarding instant Claims 15 and 16, the Short reference teaches the limitation on polymer composition an amine copolymer (Claims 22 – 25).

Regarding references 17 – 20, the Short reference does not explicitly teach the use of carbohydrate antagonists, which, as noted above in the rejection of instant Claims 1 – 3, are disclosed within the genus of antagonists.

Regarding instant Claim 17, Mori has disclosed sulfated homopolysaccharides with anti-HIV activity providing motivation to adapt the method taught by Short to specifically immobilize these compounds.

Regarding instant Claims 18 – 20, Hu teaches a method for preparing an amine modified surface that may contact and immobilize a carbohydrate in its native form through ionic interactions. Specifically, Hu teaches heparinizing, i.e. contacting the surface of a modified polymer comprising amine groups with the heteropolysaccharide, glycosaminoglycan heparin (Abstract; Column 5, Chart I, Claim 1).

The motivation to immobilize carbohydrates in their native form is taught by Keogh. The Keogh reference discloses methods for to ionically (i.e. noncovalently couple) biomolecules to a modified surface. Keogh notes that there exists a need for methods that ionically couple biomolecules to surfaces and an advantage of such coupling techniques is that they reduce the possibility of destroying the biological properties of the attached biomolecule (column 2, lines 26 – 34). Keogh also teaches that the biomolecule heparin, a negatively charged, glycosaminoglycan carbohydrate is of great interest due to its ability to inhibit blood coagulation (Column 2, lines 40 – 47). Finally, Keogh teaches that surfaces bearing bound heparin have been shown to have anticoagulant activity, therefore, heparinization tends to be a popular technique for improving the thromboresistance of biomaterials. In fact, surface heparinization through an ionic bond is one of the methods used to improve the blood compatibility of a variety of biomaterial surfaces.(Column 2, lines 48 – 54).

Therefore, using the guidance provided by the method of Short to provide polymer modified surfaces that may immobilize a wide variety of compounds (including antagonists), the teachings of Hu and Keogh regarding the importance of biologically active carbohydrates and immobilizing them in their native form, it would have been *prima facie* obvious to one of ordinary skill in the art, at the time the invention was made to use the guidance and motivation from the above references to arrive at the claimed invention with an expectation of success.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in

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US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989) and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999) as applied to Claims 1 – 20 above, and further in view of Nilsson (Nilsson *et al.* in US2001/0017270, published: August 30, 2001)

As noted above, instant Claims 1 – 20 have already been rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989) and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999).

The Short reference teaches the method of Claim 1 as well as the limitations on plasma monomer and polymer composition. The Short reference also teaches the parameters of the plasma polymerization process.

The Short reference teaches the limitation of a carbohydrate being immobilized in its native form as a generic antagonist compound but did not teach a working example or specific carbohydrate compound.

As noted above, the Mori and Hu references teach biologically important homo- and hetero-polysaccharide compounds and the teachings of Keogh provide guidance in which one of ordinary skill in the art would have been motivated to adapt the Short teachings to specific carbohydrates.

The Short, Mori, Hu and Keogh references do not teach the limitations of instant Claim 21 in which the surface of instant Claim 1 is part of a biosensor.

Instant Claim 21, is drawn to the surface of instant Claim 1, as part of a biosensor. Nilsson teaches immobilized carbohydrate biosensors in which the carbohydrate or derivative is used to generate a detectable signal via specific binding of a protein, virus or cell (Abstract, section [0001]. Thus, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to apply the method disclosed by Short to generate a binding surface to immobilize biological compounds, the prior art teachings of Mori, Hu and Keogh with the teachings of Nilsson, adapting immobilized carbohydrates as a biosensor, to arrive at the claimed invention with a high expectation of success.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989), Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999) as applied to Claims 1 – 20 above, and further in view of Dinh (Dinh *et al.* in US patent 5,554,182, published September 10, 1996).

As noted above, instant Claims 1 – 20 have already been rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989), Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999) and Nilsson (Nilsson *et al.* in US2001/0017270, published: August 30, 2001).

The Short reference teaches the method of Claim 1 as well as the limitations on plasma monomer and polymer composition. The Short reference also teaches the parameters of the plasma polymerization process.

The Short reference teaches the limitation of a carbohydrate being immobilized in its native form as a generic antagonist compound but did not teach a working example or specific carbohydrate compound.

As noted above, the Mori and Hu references teach biologically important homo- and hetero-polysaccharide compounds and the teachings of Keogh provide guidance in which one of ordinary skill in the art would have been motivated to adapt the Short teachings to specific carbohydrates.

The Short, Mori, Hu and Keogh references do not teach the limitations of instant Claim 22 in which the surface of instant Claim 1 is part of a therapeutic vehicle.

Regarding instant Claim 22, drawn to the surface of instant Claim 1, as part of a therapeutic vehicle. The instant specification defines a therapeutic vehicle as a device such as a stent. The use of heparinized surfaces of medical devices such as stents is well established in the prior art as a means to impede restenosis. One example is provided by Dinh who teaches a method for delivering a carbohydrate, heparin, immobilized on the surface of a stent in a fibrin matrix (Abstract and Column 2, lines 35 – 44). Thus, the well established prior art, exemplified by the teachings of Dinh provides strong motivation that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to apply the teachings of Short, Mori, Hu and

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Keogh with that of Dinh to adapt a surface for immobilization of carbohydrates as a therapeutic delivery vehicle with a high expectation of success.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989) and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999), as applied to Claims 1 – 20 above, and further in view of Earhart (Earhart *et al.* in US patent 6,077,232, published June 20, 2000).

As noted above, instant Claims 1 – 20 have already been rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989), Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999), Nilsson (Nilsson *et al.* in US2001/0017270, published: August 30, 2001) and Dinh (Dinh *et al.* in US patent 5,554,182, published September 10, 1996).

The Short reference teaches the method of Claim 1 as well as the limitations on plasma monomer and polymer composition. The Short reference also teaches the parameters of the plasma polymerization process.

The Short reference teaches the limitation of a carbohydrate being immobilized in its native form as a generic antagonist compound but did not teach a working example or specific carbohydrate compound.

As noted above, the Mori and Hu references teach biologically important homo- and hetero-polysaccharide compounds and the teachings of Keogh provide guidance in which one of ordinary skill in the art would have been motivated to adapt the Short teachings to specific carbohydrates.

The Short, Mori, Hu and Keogh references do not teach the limitations of instant Claim 23 in which the surface of instant Claim 1 is part of a biological sample collection device.

Earhart teaches a blood collection device comprising the carbohydrate heparin to inhibit the coagulation of blood samples (Abstract and Figures 1 and 2). Thus, the well established prior art, exemplified by the teachings of Earhart provides strong motivation that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to apply the teachings of Short, Mori, Hu and Keogh with that of Earhart to adapt a surface for immobilization of carbohydrates to a blood collection and storage device with a high expectation of success.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989) and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999) as applied to Claims 1 – 20 above, and further in view of Brigstock (Brigstock *et al.* in US2001/007019, published: July 5, 2001).

As noted above, instant Claims 1 – 20 have already been rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1;

published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989) and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999).

The Short reference teaches the method of Claim 1 as well as the limitations on plasma monomer and polymer composition. The Short reference also teaches the parameters of the plasma polymerization process.

The Short reference teaches the limitation of a carbohydrate being immobilized in its native form as a generic antagonist compound but did not teach a working example or specific carbohydrate compound.

As noted above, the Mori and Hu references teach biologically important homo- and hetero-polysaccharide compounds and the teachings of Keogh provide guidance in which one of ordinary skill in the art would have been motivated to adapt the Short teachings to specific carbohydrates.

The Short, Mori, Hu and Keogh references do not teach the limitations of instant Claim 24 in which the surface of instant Claim 1 is part of an affinity purification matrix.

Brigstock teaches the use of the carbohydrate heparin as part of an affinity purification matrix to purify uterine luminal flushings (Figures 1a and 1b). Again, it is noted that the established prior art, exemplified by the teachings of Brigstock provides strong motivation that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to apply the teachings of Short, Mori, Keogh and Hu, with that of Brigstock to adapt a surface for immobilization of carbohydrates to an affinity purification matrix.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989) and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999), as applied to Claims 1 – 20 above, and further in view of Dukler (Dukler *et al.* in US2002/0094541, published: July 18, 2002).

As noted above, instant Claims 1 – 20 have already been rejected under 35 U.S.C. 103(a) as being unpatentable over Short (Short *et al.* in WO01/31339 A1; published: May 03, 2001) in view of Mori (Mori *et al.* in US patent 5,053,398, published: October 1, 1991), Hu (Hu *et al.* in US patent 4,865,870 (published: September 12, 1989), and Keogh (Keogh *et al.* in US patent 5,925,552, published: July 10, 1999).

The Short reference teaches the method of Claim 1 as well as the limitations on plasma monomer and polymer composition. The Short reference also teaches the parameters of the plasma polymerization process.

The Short reference teaches the limitation of a carbohydrate being immobilized in its native form as a generic antagonist compound but did not teach a working example or specific carbohydrate compound.

As noted above, the Mori and Hu references teach biologically important homo- and hetero-polysaccharide compounds and the teachings of Keogh provide guidance in which one of ordinary skill in the art would have been motivated to adapt the Short teachings to specific carbohydrates.

The Short, Mori, Hu and Keogh references do not teach the limitations of instant Claim 24 in which the surface of instant Claim 1 is part of a microarray.

Dukler teaches a method of identifying a carbohydrate capable of binding to other entities such as polypeptides via a library of carbohydrate structures attached at a specific and addressable location of an array (Abstract, Claim 1). Again, as noted above, the established prior art, exemplified by the teachings of Dukler provides strong motivation that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to apply the teachings of Short, Mori, Hu and Keogh with that of Dukler to adapt a surface for immobilization of carbohydrates to a microarray.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438,

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164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 – 3 and 21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 48 – 53 of copending Application No. 11/269,427 (Short *et al.*, the '990 application).

Although the conflicting claims are not identical, they are not patentably distinct from each other. The claim set of the instant application discloses that the surface provided by the method of Step 1 – 3 contacts a carbohydrate in its native form. Claim 21 is drawn to the method of Claim 1 wherein the surface is part of a biosensor. The conflicting claims of the '427 application disclose an identical surface which comprise an immunoassay method. There is no limitation in the conflicting claims excluding the surface from being contacted with a carbohydrate as comprising the claimed immunoassay method.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS HEYER whose telephone number is (571)270-7677. The examiner can normally be reached on Monday-Friday 8AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Nolan can be reached on (571)272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DH

/Patrick J. Nolan/
Supervisory Patent Examiner, Art Unit 4121

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